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THE INTERACTION OF FATHER-ABSENCE AND SIBLING-PRESENCE ON COGNITIVE ABILITIES.

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THE PURPOSE OF THIS STUDY WAS TO INVESTIGATE THE INFLUENCE UPON A CHILD'S COGNITIVE DEVELOPMENT OF THE FATHER'S PRESENCE IN (FP) OR ABSENCE FROM (FA) THE FAMILY IN A ONE-, TWO-, OR THREE-CHILD FAMILY. THE EFFECT OF THE SEX AND ORDINAL POSITION OF A SIBLING UPON COGNITIVE DEVELOPMENT WAS ALSO CONSIDERED. DATA FOR THIS ANALYSIS WERE OBTAINED FROM SOPHOMORE STUDENTS IN AN ELEMENTARY PSYCHOLOGY COURSE AT BOWLING GREEN STATE UNIVERSITY SAMPLED OVER A FIVE-YEAR PERIOD. FA SUBJECTS NUMBERED 295 AND FP SUBJECTS NUMBERED 760. ALL SUBJECTS HAD TAKEN THE ACE PSYCHOLOGICAL EXAM AS FRESHMEN. A COMPARISON WAS MADE BETWEEN THE SCORES OF FA SUBJECTS AND FB SUBJECTS ON THE ACE TEST, WITH SPECIAL FOCUS ON WHEN IN THE LIFE OF THE SUBJECT THE FATHER'S ABSENCE OCCURRED AND THE LENGTH THEREOF. IN ADDITION, SCORES OF ALL SUBJECTS ON THE ACE TEST WERE COMPARED ON THE BASIS OF THE SIBLING INFORMATION OBTAINED. THE RESULTS OF THE ANALYSES SHOWED (1) THAT FA SUBJECTS SCORED CONSISTENTLY LOWER ON THE ACE TEST THAN FP SUBJECTS, (2) THAT THE EFFECT OF FATHER-ABSENCE IS MORE DELETERIOUS TO MALES THAN FEMALES EXCEPT WHERE THE MALE IS AN ONLY CHILD, (3) THAT FIRST BORN BOYS FROM FP FAMILIES, WHO HAVE A YOUNGER SISTER, SHOW HIGHER SCORES THAN BOYS WITH YOUNGER BROTHERS, (4) THAT RESULTS ARE SIMILAR FOR FIRST BORN GIRLS, (5) THAT HAVING AN OLDER SIBLING APPEARS SOMEWHAT TO OFFSET THE NEGATIVE EFFECT ON COGNITIVE DEVELOPMENT OF FATHER-ABSENCE, AND (6) THAT THE TOTAL NUMBER OF YEARS THE FATHER WAS ABSENT APPEARS TO HAVE NO PARTICULAR EFFECT, IN AND OF ITSELF, ON EITHER MALES OR FEMALES. (WD)

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The Interaction of Father-Absence and Sibling-Presence on Cognitive Abilities

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The greater proportion of the socialization literature throughout the past 30 years has concentrated upon the effects of the parents upon the children. Since Koch (1955; 1956; 1960) and Schacter's work (1959), however, there has been increasing attention to the effects of siblings upon each other. The present investigators have contributed to this latter class of inquiries (Sutton-Smith, Roberts, & Rosenberg, 1964; Rosenberg & Sutton-Smith, 1964[a]; Rosenberg, Sutton-Smith, & Griffiths, 1965: Sutton-Smith & Rosenberg, 1965[a]), and in particular to studies concerned with the effects of siblings on each other's cognitive abilities (Rosenberg & Sutton-Smith, 1964[b]; Rosenberg & Sutton-Smith, in press). When an overview is taken of both these parent-child and child-child studies, the question that naturally arises concerns the relative influence of each. Do parents have a greater influence, or do siblings have a greater influence upon child development? Or perhaps, to put the matter more sensibly, how do parent-child and child-child influences interact to produce an influence in child development? The present study is one of a series concerned with such interacting influences within the family as these effect sex role identification, role-playing competence, power relationships, and cognitive abilities. This paper, however, focuses upon only one aspect of this general problem, namely, the

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relative effects of father presence or absence, and of sibling presence or absence upon the cognitive abilities of family members of different sibling positions in the single, two-, and three-child families. What, for example, is the effect of having both a father and a brother as compared with the effect of having a father without a brother or a brother without a father? Is there any difference in the variation of scores in each case?

In order to set up such comparisons within the present group of subjects, it has been necessary first to answer a preliminary question concerning the effect of a father's presence or absence on cognitive abilities. While there have been a number of demonstrations of father presence-absence effects on sex role identification, maladjustment, and delinquency (Nash, 1965), comparable studies of father-absence effects on cognition have not yet appeared in the literature. Nevertheless, the generally negative picture of the identification and adjustment difficulties of father-absent boys would suggest the likelihood of a negative effect on their cognitive abilities. In addition, as father-absence appears to be more critical at some age periods than others (Sears, Maccoby, & Levin, 1957), it has seemed desirable to take the age of absence into account. The present study then investigates the effects of father-absence as against father-presence upon cognitive abilities in general, with special attention to absence-presence during the preschool years, childhood years, and adolescence. Secondly, various sibling sex and ordinal positions in single, two-, and three-child families are examined for the effects of father absence-presence assuming various sibling

configurations mediate this effect in a differentially systematic fashion.

Method

In order to obtain an adequate sample of father-absent (FA) subjects, sophomore members of a lower division psychology course at Bowling Green State University were sampled over a five-year period yielding an N of 295. A comparable father-present (FP) sample was randomly obtained from the same course during this period (N=760). The subjects for both groups were of 19 years median age and did not differ significantly on a manual-nonmanual split. The ACE scores (Berdie, et al, 1951) taken by all incoming freshmen at the University were obtained from the Counseling Center. For statistical treatment, all ACE scores (reported in percentiles) were converted to standard scores and *t* tests were employed in the analysis.

With varying sized Ns and varying periods in which the father was reported absent, it was arbitrarily decided to include in the FA sample only those individuals whose father had been absent from the home for two consecutive years or more. To order the data, two major breakdowns obtained, in addition to family size, sex of subject, and sex of sibling: (1) period of FA from home, consecutively, 0-4, 5-9, and 10+ years; (2) age of subject during FA, 0-4, 5-9, and 10+ years. For the latter breakdown, it was necessary to collapse across categories in order to obtain adequate Ns, e.g., 0-4 years, 10+ years, (0-4 and 5-9 years) middle, and (5-9 and 10+ years) late.

Results

Table 1 presents median Q, L, and T scores for the entire sample. Since the Ns were too small for the second born boys with an older brother (MM2) or with an older sister (FM2), these categories were omitted in the analysis.

Insert Table 1 about here

Entire Sample. It is apparent that father absence (FA) effects are dramatic. That is to say, for the entire sample, Q, L, and T scores on the ACE are significantly lower for FA families as contrasted with FP families, regardless of the subject's stage in development or the length of time the father was away.

Family Size. Table 1 gives evidence of this over-all depressant effect of FA on cognitive scores for the members of the two- and three-child families. In addition, it is noteworthy that the deleterious effects on cognitive scores are greater for males than females as would be predicted. Interestingly, FP effects (heightening of scores) seems greatest for females in the only child family.

Sibling Sex Status Effects. The evidence from Table 1 indicates that sibling sex status effects are greatest with presence or absence of an opposite sex sibling. Thus, for males in the two-child family, first born boys with a younger brother (M1M) differ only directionally when FP and FA are compared. First born boys with a younger sister (M1F), however, show a marked heightening of ACE scores with FP. Again, for females, the first born girl

with a younger brother (F1M) seems most affected by FA, as can be seen by a significant heightening of Q scores with FP, while first-born girls with younger sisters (F1F) show much less effect.

Birth Order. In addition, FA-FP effects appear to influence first borns more than non-first borns. Thus, having an older sibling appears to dilute the effects of FA (no significant differences on Q, L, or T for FP or FA second borns.

Stage in Development and Length of Time of FA. Tables 2 and 3 present the data concerning stage in development when FA occurred and the length of time father was absent.

Insert Table 2 about here

Insert Table 3 about here

The number of years father was absent appears not to have a significant effect for males and females, a finding similar to that of Greenstein (1966). The period in development (chronological age) at which father was absent appears significant. From the data, the depressant effects related to FA appear to be during the years of middle childhood (overlap of ages (0-5) and (5-9)) for both males and females, i.e., approximately 3-7 year age period. Unfortunately, the data turned out to be contaminated by its cross-sectional nature: the major reason given for FA by the 1-4 year group was war service, and by all other groups, divorce. The difference was significant ($P < .001$). This finding does not

remove the possibility that FA interacts critically with a given age, but it does mean that the present data are insufficient to confirm this trend.

Discussion

The present study has yielded some expected and some novel results. First, regardless of family size or sibling sex status, FA is accompanied by depressed scores on the ACE, while FP is accompanied by heightened scores on the ACE.

In addition, the results are predictably greater for males than females, with the exception in the one-child family.

The intent of the present study was not simply to provide evidence of FA-FP effects on children generally, and boys specifically as has been established in other realms, but to examine the interactions between these effects and sibling influence. Noteworthy are the findings regarding family size which compare FA effects in the one-child family (with no siblings) and two- and three-child families (with siblings present). Although there are significant effects of FA on the cognitive ability of male children with siblings, the same effect is absent for the only boy. Perhaps this is explained by Jones' 1931 survey of the literature which concluded that the only boy is more feminine than boys in multi-child families. If this is true, it might be because the only boy retains his first identification with the mother as the primary socializing agent (Parsons, 1955) and is thus not so greatly affected by FA or FP. On the other hand, first born boys in the two- and three-child families (the positional counterpart of the only male child) may be more abruptly dislodged from the continuity

of sex role identification with the appearance of a younger sibling (Rosenberg & Sutton-Smith, 1964)[a], and thus be more sensitized to the omission of models in sex role identification. Such an explanation might account for the greater FA effects in this case.

Another notion, somewhat more speculative, suggests that parent-differentiation in sex role is a function of family size and the sex status of their children. That is to say, in the one-child family, parents are less easily differentiated in their roles and thus each fulfills in a similar way the child's needs, a finding already demonstrated in our studies of family size and power tactics (Sutton-Smith & Rosenberg, 1965b). In multi-child families, however, increased role differences make more salient the effects of parent-absence, be it mother or father.

Regarding sibling sex effects, the presence of an opposite-sex sibling is accompanied by greater variation in FA-FP effects. At least two explanations seem necessary. For the boy with a younger sister and a mother, the all-female configuration poses greater threat to self-identity such that FP is more dramatically effective than would otherwise be the case. For the girl with a younger brother, FP probably highlights the nature and function of the masculine role (rise in Q scores) which is obscured when FA produces a predominantly feminine configuration (mother, first born daughter, and youngest son). That is to say, the low power influence of second-borness as compared with first-borness (Sutton-Smith & Rosenberg, 1965a) makes minimal the influence of the second-born brother in the FA condition, yet reinforces its significance when FP is combined with a male sibling.

Certainly the present data suggests that the sibling, especially the older sibling, may act in a model capacity for later-borns in relationship to parental influence in general and FA in particular. Again, the presence of a male sibling covaries with birth order to dispose greater or less effects with FA.

Table 1

Summary of Median Scores on ACE for Entire Sample

	Father Absent				Father Present				Differences (t tests)		
	Q	L	T	Ns	Q	L	T	Ns	Q	L	T
M	53	54	47	(21)	56	45	48	(35)	-	.20	
F	53	66	61	(46)	71	71	67	(51)	.05	.20	.10
M1M	49	38	44	(20)	67	54	56	(38)	.10	.10	.20
M1F	49	33	35	(17)	71	58	67	(34)	.01	.001	.001
MM2											
FM2											
F1F	56	67	61	(40)	60	61	56	(43)	-	-	-
F1M	49	69	60	(36)	71	61	68	(68)	.02	-	-
FF2	64	58	68	(15)	59	63	59	(48)	.20	-	-
MF2	60	70	67	(17)	71	61	66	(59)	.20	-	-
2 child males	49	38	41	(49)*	71	56	63	(149)	.01	.001	.001
2 child females	56	65	61	(108)	67	63	63	(217)	.10	-	=
1,2,3 child Ms	53	49	44	(97)	71	55	63	(320)	.001	.001	.001
1,2,3 child Fs	56	65	61	(198)	67	54	66	(440)	.001	-	.20

*Two child FA males sum includes 12 second born males (MM2 and FM2) not treated in category analysis.

Table 2

Median ACE Scores for Number of Years FA*

Males

Years Abs.	0-4 (6)	5-9 (6)	10+ (15)
Q	55	58	54
L	36	50	38
T	38	54	38

Females

Years Abs.	0-4 (117)	5-9 (39)	10+ (37)
Q	54	58	54
L	68	68	57
T	59	65	50

*Number in Parentheses refers to the N.

Table 3

Median ACE Scores for FA During Years While Growing Up

Males

S's Age during FA

	0-4 (43)	middle (0-4) (5-9) (20)	late (5-9) (10+) (16)
Q	59	38	51
L	43	34	38
T	46	35	39

Females

	0-4 (89)	middle (0-4) (5-9) (27)	late (5-9) (10+) (28)	(10+) (28)
Q	59	37	62	51
L	66	64	64	76
T	62	54	60	65

Males: $T_{(0-4)}$-middle, $P < .05$.

Females:

$Q_{(0-4)}$-Q_{middle}, $P < .02$
Q_{middle}-Q_{late}, $P = .001$
Q_{middle}-$_{10+}$, $P < .05$
Q_{late}, $P < .05$

$L_{(0-4)}$-$_{10+}$, $P < .05$
L_{middle}-$_{10+}$, $P < .05$
L_{late}-$_{10+}$, $P < .05$

$T_{(0-4)}$-middle, $P < .1$
T_{middle}-$_{10+}$ $P < .05$
T_{middle}-late, $P < .05$

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